

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A disk augmentation system comprising:
 - a first support for mounting onto a first vertebra in a spinal column;
 - a second support for mounting onto a second vertebra;
 - said first and second supports being located exterior to a disk area between said first and second vertebrae and cooperating to define a compression body area for receiving a compression body; and
 - said first and second supports supporting said compression body exterior to said disk area and permitting said first and second supports to become non-parallel during compression of the compression body;

wherein said compression body is generally planar.
2. (Original) The disk augmentation system as recited in claim 1 wherein said first support comprises a first planar member and said second support comprises a second planar member, said first and second planar members being in a generally parallel relationship after said first and second supports are mounted onto said first and second vertebrae, respectively.
3. (Previously Presented) The disk augmentation system as recited in claim 2 wherein said first and second planar members are situated at a predetermined angle relative to an axis of said spinal column.

4. (Previously Presented) The disk augmentation system as recited in claim 3 wherein said predetermined angle approximates an angle between an imaginary plane in which said first vertebra lies and said long axis of the spine.

5. (Original) The disk augmentation system as recited in claim 3 wherein said predetermined angle is approximately 30 degrees.

6. (Currently Amended) ~~The disk augmentation system as recited in claim 4~~ A disk augmentation system comprising:
_____ a first support for mounting onto a first vertebra in a spinal column;
_____ a second support for mounting onto a second vertebra;
_____ said first and second supports being located exterior to a disk area between said first and second vertebrae and cooperating to define a compression body area for receiving a compression body; and
_____ said first and second supports supporting said compression body exterior to said disk area and permitting said first and second supports to become non-parallel during compression of the compression body; and
wherein said disk augmentation system further comprises an adjustable tensioner.

7. (Original) ~~The disk augmentation system as recited in claim 6~~ A disk augmentation system comprising:

_____ a first support for mounting onto a first vertebra in a spinal column;

_____ a second support for mounting onto a second vertebra;

_____ said first and second supports being located exterior to a disk area between said first and second vertebrae and cooperating to define a compression body area for receiving a compression body; and

_____ said first and second supports supporting said compression body exterior to said disk area and permitting said first and second supports to become non-parallel during compression of the compression body;

_____ wherein said disk augmentation system further comprises an adjustable tensioner; and

_____ wherein said adjustable tensioner comprises a screw for adjustably tightening and securing said first support to said second support.

8. (Original) The disk augmentation system as recited in claim 1 wherein said compression body is selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined densities.

9. (Original) The disk augmentation system as recited in claim 1 wherein said compression body is selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined shapes.

10. (Previously Presented) The disk augmentation system as recited in claim 1 wherein said disk augmentation system comprises a third support that cooperates with said first and second supports to support said first and second vertebrae when they move in opposite directions.

11. (Previously Presented) The disk augmentation system as recited in claim 10 wherein said third support cooperates with at least one of said first or second supports to define a second compression body receiving area for receiving a second compression body.

12. (Original) The disk augmentation system as recited in claim 11 wherein said first support comprises a first planar member, said second support comprises a second planar member, and said third support comprises a third planar member, said first, second and third planar members being in a generally parallel relationship after said first, second and third supports are mounted on said first and second vertebrae.

13. (Previously Presented) The disk augmentation system as recited in claim 12 wherein said first, second and third generally planar members are generally parallel and are situated at a predetermined angle relative to said spinal cord.

14. (Original) The disk augmentation system as recited in claim 13 wherein said predetermined angle is acute.

15. (Original) The disk augmentation system as recited in claim 13 wherein said predetermined angle is approximately 30 degrees.

16. (Currently Amended) ~~The disk augmentation system as recited in claim 10~~ A disk augmentation system comprising:

_____ a first support for mounting onto a first vertebra in a spinal column;

_____ a second support for mounting onto a second vertebra;

_____ said first and second supports being located exterior to a disk area between said first and second vertebrae and cooperating to define a compression body area for receiving a compression body; and

_____ said first and second supports supporting said compression body exterior to said disk area and permitting said first and second supports to become non-parallel during compression of the compression body; and

_____ wherein said disk augmentation system comprises an adjustable tensioner.

17. (Currently Amended) ~~The disk augmentation system as recited in claim 16~~ A disk augmentation system comprising:

_____ a first support for mounting onto a first vertebra in a spinal column;

_____ a second support for mounting onto a second vertebra;

_____ said first and second supports being located exterior to a disk area between said first and second vertebrae and cooperating to define a compression body area for receiving a compression body; and

_____ said first and second supports supporting said compression body exterior to said disk area and permitting said first and second supports to become non-parallel during compression of the compression body;

_____ wherein said disk augmentation system comprises a third support that cooperates with said first and second supports to support said first and second vertebrae when they move in opposite directions;

_____ wherein said disk augmentation system comprises an adjustable tensioner; and

_____ wherein said adjustable tensioner comprises a screw for adjustably tightening and securing said first support to said second support.

18. (Previously Presented) The disk augmentation system as recited in claim 11 wherein said compression body and said second compression body are selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined densities.

19. (Previously Presented) The disk augmentation system as recited in claim 11 wherein said compression body and said second compression body are selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined shapes.

20. (Original) The disk augmentation system as recited in claim 19 wherein said different predetermined shapes comprise multi-sided, quadrangular or triangular profile.

21. (Original) The disk augmentation system as recited in claim 11 wherein said compression body and said second compression body are generally quadrangular, rectangular, circular or elliptical.

22. – 25. (Cancelled)

26. (Currently Amended) An adjustable compression system for mounting to a plurality of vertebrae:

a support for mounting on the vertebrae of a spinal column; and
a retainer situated exterior of said spinal column for retaining a compression body outside a native disk space and an axis of the spine;

said retainer facilitating reducing loading of at least one disk in said spinal column, said retainer comprising a first support for mounting to a first one of said vertebrae and a second support for mounting to a second one of said vertebrae, said first and second supports being adapted to permit said compression body to replicate or augment a function of a natural intervertebral disk by permitting said first support and said second support to become non-parallel relative to each other during use;

wherein said compression body is generally planar.

27. (Cancelled)

28. (Currently Amended) ~~The adjustable compression system as recited in claim 26~~

An adjustable compression system for mounting to a plurality of vertebrae;

_____ a support for mounting on the vertebrae of a spinal column; and

_____ a retainer situated exterior of said spinal column for retaining a compression body outside a native disk space and an axis of the spine;

_____ said retainer facilitating reducing loading of at least one disk in said spinal column, said retainer comprising a first support for mounting to a first one of said vertebrae and a second support for mounting to a second one of said vertebrae, said first and second supports being adapted to permit said compression body to replicate or augment a function of a natural intervertebral disk by permitting said first support and said second support to become non-parallel relative to each other during use;

_____ wherein said adjustable compression system comprises at least one fastener that is adjustable to permit loading said compression body with a predetermined amount of pressure.

29. (Original) The adjustable compression system as recited in claim 28 wherein said predetermined amount of pressure is on the order of the physiological pressures upon the native intervertebral disk.

30. (Original) The adjustable compression system as recited in ~~claim 27~~ claim 28 wherein said first support and said second support are generally planar.

31. (Currently Amended) The adjustable compression system as recited in ~~claim 27~~ claim 28 wherein said first support comprises a first mount for securing to a first vertebra and said second support comprises a second mount for securing to a second vertebra;

said first and second supports each comprising a recessed area for mounting on said first mount and said second mount, respectively, said adjustable compression system further comprising:

a plurality of fasteners for securing said first and second supports onto said first and second mounts, respectively, after said first and second mounts are mounted onto said first and second vertebra.

32. (Previously Presented) The adjustable compression system as recited in claim 31 wherein said first and second mounts comprise at least one cylindrical support mounted onto said first and second vertebra, respectively, with at least one screw.

33. (Currently Amended) The adjustable compression system as recited in ~~claim 27~~ claim 28 wherein said first support comprises a first planar member and said second support comprises a second planar member, said first and second planar members being in a generally parallel relationship after said first and second supports are mounted on said vertebrae, respectively.

34. (Previously Presented) The adjustable compression system as recited in claim 33 wherein said first and second planar members are situated at a predetermined angle relative to said spinal column.

35. (Previously Presented) The adjustable compression system as recited in claim 34 wherein said predetermined angle is acute.

36. (Previously Presented) The adjustable compression system as recited in claim 34 wherein said predetermined angle is approximately 30 degrees.

37. (Original) The adjustable compression system as recited in claim 26 wherein said compression body is selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined densities.

38. (Original) The adjustable compression system as recited in claim 26 wherein said compression body is selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined shapes.

39. (Currently Amended) ~~The adjustable compression system as recited in claim 27~~
An adjustable compression system for mounting to a plurality of vertebrae;
_____ a support for mounting on the vertebrae of a spinal column; and
_____ a retainer situated exterior of said spinal column for retaining a compression
body outside a native disk space and an axis of the spine;
_____ said retainer facilitating reducing loading of at least one disk in said spinal
column, said retainer comprising a first support for mounting to a first one of said
vertebrae and a second support for mounting to a second one of said vertebrae, said
first and second supports being adapted to permit said compression body to replicate or
augment a function of a natural intervertebral disk by permitting said first support and
said second support to become non-parallel relative to each other during use;
_____ wherein said adjustable compression system comprises a third support that
cooperates with said first and second supports to facilitate reducing load on at least one
native disk when said adjacent-first one of said vertebrae and said second one of said
vertebrae move in opposite directions.

40. (Original) The adjustable compression system as recited in claim 39 wherein said third support and at least one of said first or second supports defines a second compression body receiving area for receiving a second compression body.

41. (Previously Presented) The adjustable compression system as recited in claim 40 wherein said first support comprises a first planar member, said second support comprises a second planar member, and said third support comprises a third planar member, said first, second and third supports being in a generally parallel relationship after said first, second and third supports are mounted on said adjacent vertebrae.

42. (Original) The adjustable compression system as recited in claim 41 wherein said first, second and third planar members are situated at a predetermined angle relative to said spinal cord.

43. (Original) The adjustable compression system as recited in claim 42 wherein said predetermined angle is an acute angle.

44. (Original) The adjustable compression system as recited in claim 43 wherein said predetermined angle is less than 60 degrees.

45. (Previously Presented) The adjustable compression system as recited in claim 41 wherein said adjustable compression system comprises at least one fastener that is adjustable to permit loading said compression body with a predetermined amount of pressure.

46. (Original) The adjustable compression system as recited in claim 45 wherein said at least one fastener comprises a screw for adjustably securing said first, second and third supports together.

47. (Previously Presented) The adjustable compression system as recited in claim 45 wherein said at least one fastener retains said first and second support and said compression bodies together.

48. (Original) The adjustable compression system as recited in claim 46 wherein said compression body and said second compression body are selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined densities.

49. (Original) The adjustable compression system as recited in claim 46 wherein said compression body and said second compression body are selected from a supply of a plurality of compression bodies, said plurality of compression bodies comprising different predetermined shapes.

50. (Original) The adjustable compression system as recited in claim 48 wherein said compression body and said second compression body comprise a compressible material such as polyethylene, silicone, or viscoelastic polymer.

51. (Cancelled)

52. (Currently Amended) The adjustable compression system as recited in claim 26 wherein said retainer is posterior of said spinal column after said support is mounted to said adjacent first one of said vertebrae and said second one of said vertebrae.

53. (Currently Amended) A method for reducing load on a disk, said method comprising the steps of:

mounting a first support on a first vertebra;

mounting a second support on a second vertebra that is adjacent said first vertebra; said first and second supports defining an area for housing a compression body external to an axis of a spinal cord; and

situating said compression body in said area;

said first and second supports being adapted to become non-parallel during compression of said compression body;

wherein said compression body is generally planar.

54. (Original) The method as recited in claim 53 wherein said method further comprises the step of:

selecting said compression body from a supply of a plurality of compression bodies.

55. (Original) The method as recited in claim 54 wherein said plurality of compression bodies comprise different densities.

56. (Original) The method as recited in claim 54 wherein said plurality of compression bodies comprise different shapes.

57. (Original) The method as recited in claim 53 wherein said method further comprises the steps of:

performing said situating step during a first operation;

removing said compression body and inserting a replacement compression body during a second operation.

58 – 59 (Cancelled)

60. (Previously Presented) The method as recited in claim 53 wherein said method further comprises the step of:

adjustably securing said first and second supports.

61. (Previously Presented) The method as recited in claim 60 wherein said method further comprises the step of:

adjustably securing at least one compression body between said first and second supports.

62. – 63. (Cancelled)

64. (Currently Amended) An adjustable compression system for reducing a load on at least one lumbar disk in a spinal column, said adjustable compression system comprising:

a retainer for mounting on a first vertebra and a second vertebra of a spinal column, said retainer comprising a first artificial body support and a second artificial body support cooperating to define a retaining area for receiving an artificial body and for supporting said artificial body posterior of said first vertebra and said second vertebra;

said retainer cooperating with said artificial body to facilitate reducing load on said at least one lumbar disk when said first vertebra and said second vertebra move either toward or away from each other; and permitting said first artificial body support and said second artificial body support to become non-parallel relative to each other to replicate or augment a function of a native disk;

said artificial body being generally planar.

65. (Currently Amended) ~~The adjustable compression system as recited in claim 64~~
An adjustable compression system for reducing a load on at least one lumbar disk in a
spinal column, said adjustable compression system comprising:

_____ a retainer for mounting on a first vertebra and a second vertebra of a spinal
column, said retainer comprising a first artificial body support and a second artificial
body support cooperating to define a retaining area for receiving an artificial body and
for supporting said artificial body posterior of said first vertebra and said second
vertebra;

_____ said retainer cooperating with said artificial body to facilitate reducing load on
said at least one lumbar disk when said first vertebra and said second vertebra move
either toward or away from each other; and permitting said first artificial body support
and said second artificial body support to become non-parallel relative to each other to
replicate or augment a function of a native disk;

_____ wherein ~~the~~ said artificial body is a disk.

66. (Currently Amended) ~~The adjustable compression system as recited in claim 64~~
claim 65 wherein said retainer reduces loading when said first vertebra and second
vertebra move toward each other.

67. (Currently Amended) ~~The adjustable compression system as recited in claim 64~~
claim 65 wherein said retainer reduces loading when said first vertebra and second
vertebra move away from each other.

68. (Currently Amended) ~~The adjustable compression system as recited in claim 64~~
claim 65 wherein said retainer reduces loading when said first vertebra and said second
vertebra move either toward or away from each other.

69. (Previously Presented) The adjustable compression system as recited in ~~claim 64~~
claim 65 wherein said retainer comprises:

a first mount for mounting on said first vertebra and a second mount for mounting
on said second vertebra, said first mount comprising said artificial body support and
said second mount comprising said second artificial body support;

said first and second artificial body supports cooperating to define said retaining
area.

70. (Previously Presented) The adjustable compression system as recited in claim 69
wherein said first and second mounts detachably receive said first and second artificial
body supports after said first and second mounts are mounted on said first vertebra and
said second vertebra, respectively.

71. (Currently Amended)—~~The adjustable compression system as recited in claim 70~~

An adjustable compression system for reducing a load on at least one lumbar
disk in a spinal column, said adjustable compression system comprising:

a retainer for mounting on a first vertebra and a second vertebra of a spinal
column, said retainer comprising a first artificial body support and a second artificial
body support cooperating to define a retaining area for receiving an artificial body and
for supporting said artificial body posterior of said first vertebra and said second
vertebra;

said retainer cooperating with said artificial body to facilitate reducing load on
said at least one lumbar disk when said first vertebra and said second vertebra move
either toward or away from each other; and permitting said first artificial body support
and said second artificial body support to become non-parallel relative to each other to
replicate or augment a function of a native disk;

wherein said retainer comprises:

_____ a first mount for mounting on said first vertebra and a second mount for mounting on said second vertebra, said first mount comprising said artificial body support and said second mount comprising said second artificial body support;

_____ said first and second artificial body supports cooperating to define said retaining area;

_____ wherein said first and second mounts detachably receive said first and second artificial body supports after said first and second mounts are mounted on said first vertebra and said second vertebra, respectively; and

_____ wherein said system comprises at least one fastener for adjustably fastening said first and second artificial body supports to said first and second mounts.

72. (Currently Amended) ~~The adjustable compression system as recited in claim 64~~
An adjustable compression system for reducing a load on at least one lumbar disk in a spinal column, said adjustable compression system comprising:

_____ a retainer for mounting on a first vertebra and a second vertebra of a spinal column, said retainer comprising a first artificial body support and a second artificial body support cooperating to define a retaining area for receiving an artificial body and for supporting said artificial body posterior of said first vertebra and said second vertebra;

_____ said retainer cooperating with said artificial body to facilitate reducing load on said at least one lumbar disk when said first vertebra and said second vertebra move either toward or away from each other; and permitting said first artificial body support and said second artificial body support to become non-parallel relative to each other to replicate or augment a function of a native disk;

_____ wherein said system comprises at least one adjustable fastener to permit adjustable loading of said artificial body with a predetermined amount of pressure after said artificial body is received in said retaining area.

73.(Original) The adjustable compression system as recited in claim 72 wherein said predetermined amount of pressure is on the order of the physiological pressures upon the native intervertebral disk.

74.(Original) The adjustable compression system as recited in claim 69 wherein said first and second artificial body supports are generally planar.

75. (Previously Presented) The adjustable compression system as recited in claim 69 wherein said first and second mounts each comprise at least one mounting rod;
said first and second artificial body supports being mounted on said at least one mounting rod such that said first and second artificial body supports are situated in a generally opposed relationship exterior to said spinal column.

76. (Previously Presented) The adjustable compression system as recited in claim 69 wherein said first artificial body support comprises a first planar member and said second artificial body support comprises a second planar member, said first and second planar members being in a generally parallel relationship after said first vertebra and second vertebra are mounted on said first and second vertebrae, respectively.

77. (Previously Presented) The adjustable compression system as recited in claim 76 wherein said first and second planar members are situated at a predetermined angle relative to said spinal column.

78.(Original) The adjustable compression system as recited in claim 77 wherein said predetermined angle is acute.

79. (Original) The adjustable compression system as recited in claim 77 wherein said predetermined angle faces downward at approximately 30 degrees.

80. (Currently Amended) The adjustable compression system as recited in ~~claim 64~~ claim 65 wherein said artificial body is selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined densities.

81. (Currently Amended) The adjustable compression system as recited in ~~claim 64~~ claim 65 wherein said artificial body is selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined shapes.

82. (Previously Presented) The adjustable compression system as recited in claim 69 wherein said system comprises a third mount that cooperates with at least one of said first and second mounts for reducing spinal column loads when said first vertebra and second vertebra move in opposite directions.

83. (Original) The adjustable compression system as recited in claim 82 wherein said third mount and at least one of said first or second mounts defines a second artificial body receiving area for receiving a second artificial body.

84. (Previously Presented) The adjustable compression system as recited in claim 83 wherein said first mount comprises a first planar member, said second mount comprises a second planar member, and said third mount comprises a third planar member, said first, second and third mounts being in a generally parallel relationship after said retainer is mounted to said first vertebra and said second vertebra.

85. (Previously Presented) The adjustable compression system as recited in claim 84 wherein said first, second and third generally planar members are situated at a predetermined angle relative to said spinal column.

86. (Original) The adjustable compression system as recited in claim 85 wherein said predetermined angle is an acute angle.

87. (Original) The adjustable compression system as recited in claim 76 wherein said predetermined angle faces downward at approximately 30 degrees.

88. (Currently Amended) ~~The adjustable compression system as recited in claim 84~~
An adjustable compression system for reducing a load on at least one lumbar disk in a spinal column, said adjustable compression system comprising:

a retainer for mounting on a first vertebra and a second vertebra of a spinal column, said retainer comprising a first artificial body support and a second artificial body support cooperating to define a retaining area for receiving an artificial body and for supporting said artificial body posterior of said first vertebra and said second vertebra;

said retainer cooperating with said artificial body to facilitate reducing load on said at least one lumbar disk when said first vertebra and said second vertebra move either toward or away from each other; and permitting said first artificial body support and said second artificial body support to become non-parallel relative to each other to replicate or augment a function of a native disk;

wherein said retainer comprises:

a first mount for mounting on said first vertebra and a second mount for mounting on said second vertebra, said first mount comprising said artificial body support and said second mount comprising said second artificial body support;

said first and second artificial body supports cooperating to define said retaining area;

wherein said system further comprises a third mount that cooperates with at least one of said first and second mounts for reducing spinal column loads when said first vertebra and second vertebra move in opposite directions;

_____ wherein said third mount and at least one of said first or second mounts defines a second artificial body receiving area for receiving a second artificial body;

_____ wherein said first mount comprises a first planar member, said second mount comprises a second planar member, and said third mount comprises a third planar member, said first, second and third mounts being in a generally parallel relationship after said retainer is mounted to said first vertebra and said second vertebra; and

_____ wherein said system comprises at least one fastener for adjustably fastening said first, second and third mounts together to permit loading said first and second artificial bodies with a predetermined amount of pressure.

89. (Previously Presented) The adjustable compression system as recited in claim 88 wherein said at least one fastener comprises a screw for adjustably securing said first, second and third mounts together.

90. (Original) The adjustable compression system as recited in claim 83 wherein said artificial body and said second artificial body are selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined densities.

91. (Original) The adjustable compression system as recited in claim 83 wherein said artificial body and said second artificial body are selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined shapes.

92. (Currently Amended) The adjustable compression system as recited in claim 90 wherein said artificial body and said second artificial body comprise a compressible material ~~such as~~ having polyethylene, silicone, or viscoelastic polymer.

93. (Original) The adjustable compression system as recited in claim 91 wherein said predetermined shapes comprises circular, triangular, elliptical or polygonal.

94 – 97 (Cancelled)

98. (Currently Amended) An extra-axial spinal artificial disk method comprising the step of
placing an artificial elastic or articulating mechanism that replicates or augments the function of a native disk in any location other than a native disk space or a normal axis of the spine, said artificial elastic or articulating mechanism having a plurality of supports that become non-parallel during actuation to replicate or augment the function of said native disk; and
wherein said artificial elastic or articulating mechanism is generally planar.

99. (Currently Amended) An artificial disk that replicates or augments the function of a native disk in any location other than a native disk space or a normal axis of the spine, comprising:

 a body having a first support and a second support; and
 an elastomeric or articulating mechanism between said first and second supports in the body, said first support and said second support being non-parallel relative to each other when said elastomeric or articulating mechanism is under loading; and
wherein said elastomeric or articulating mechanism is generally planar.

100 – 128 (Cancelled)

129. (new) The adjustable compression system as recited in claim 65 wherein said artificial body is selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined densities.

130. (New) The adjustable compression system as recited in claim 65 wherein said artificial body is selected from a supply of a plurality of artificial bodies, said plurality of artificial bodies comprising different predetermined shapes.

131. (New) The adjustable compression system as recited in claim 130 wherein said different predetermined shapes comprise multi-sided, quadrangular or triangular profile.

132. (New) The adjustable compression system as recited in claim 65 wherein said artificial body comprises circular, triangular, elliptical or polygonal shape.